WHAT IS CLAIMED IS:

1. A semiconductor integrated circuit device comprising:

a resonant circuit which makes resonance at an arbitrary frequency;

a transmission line for transmitting a high-frequency signal having said frequency, one of two end portions of said transmission line being connected to said resonant circuit;

an active element having a first electrode connected to the other end portion of said transmission line, a second electrode which is grounded through a reactance element, and a third electrode;

an output-matching circuit including a diode section for regulating an oscillation power and a high-frequency signal output terminal, one of two end portions of said diode section being connected to said third electrode of said active element, and said high-frequency signal output terminal being connected to the other end portion of said diode section; and

a substrate having a main surface on which said resonant circuit, said transmission line, said active element and said output-matching circuit are arranged.

2. The semiconductor integrated circuit device according to claim 1, wherein said diode section includes a

plurality of diodes arranged in an inverse parallel manner.

3. The semiconductor integrated circuit device according to claim 1, wherein said diode section includes a plurality of diodes arranged in series.

4. The semiconductor integrated circuit device according to claim 1, further comprising a bias circuit for applying a DC bias to said diode section.

5. A semiconductor integrated circuit device comprising:

a resonant circuit which makes resonance at an arbitrary frequency;

a transmission line for transmitting a high-frequency signal having said frequency, one of two end portions of said transmission line being connected to said resonant circuit;

an oscillation power regulating circuit including a diode section for regulating an oscillation power, one end portion of said oscillation power regulating circuit being connected to the other end portion of said transmission line;

an active element having a first electrode connected to the other end portion of said transmission line, a second electrode which is grounded through a reactance element, and a third electrode;

an output-matching circuit including a high-frequency

signal output terminal, said output-matching circuit being connected to said third electrode of said active element; and

a substrate having a main surface on which said resonant circuit, said transmission line, said oscillation power regulating circuit, said active element and said output-matching circuit are arranged.

6. The semiconductor integrated circuit device according to claim 5, wherein said diode section includes a plurality of diodes arranged in an inverse parallel manner.

7. The semiconductor integrated circuit device according to claim 5, wherein said diode section includes a plurality of diodes arranged in series.

8. The semiconductor integrated circuit device according to claim 5, further comprising a bias circuit for applying a DC bias to said diode section.